

(No Model.)

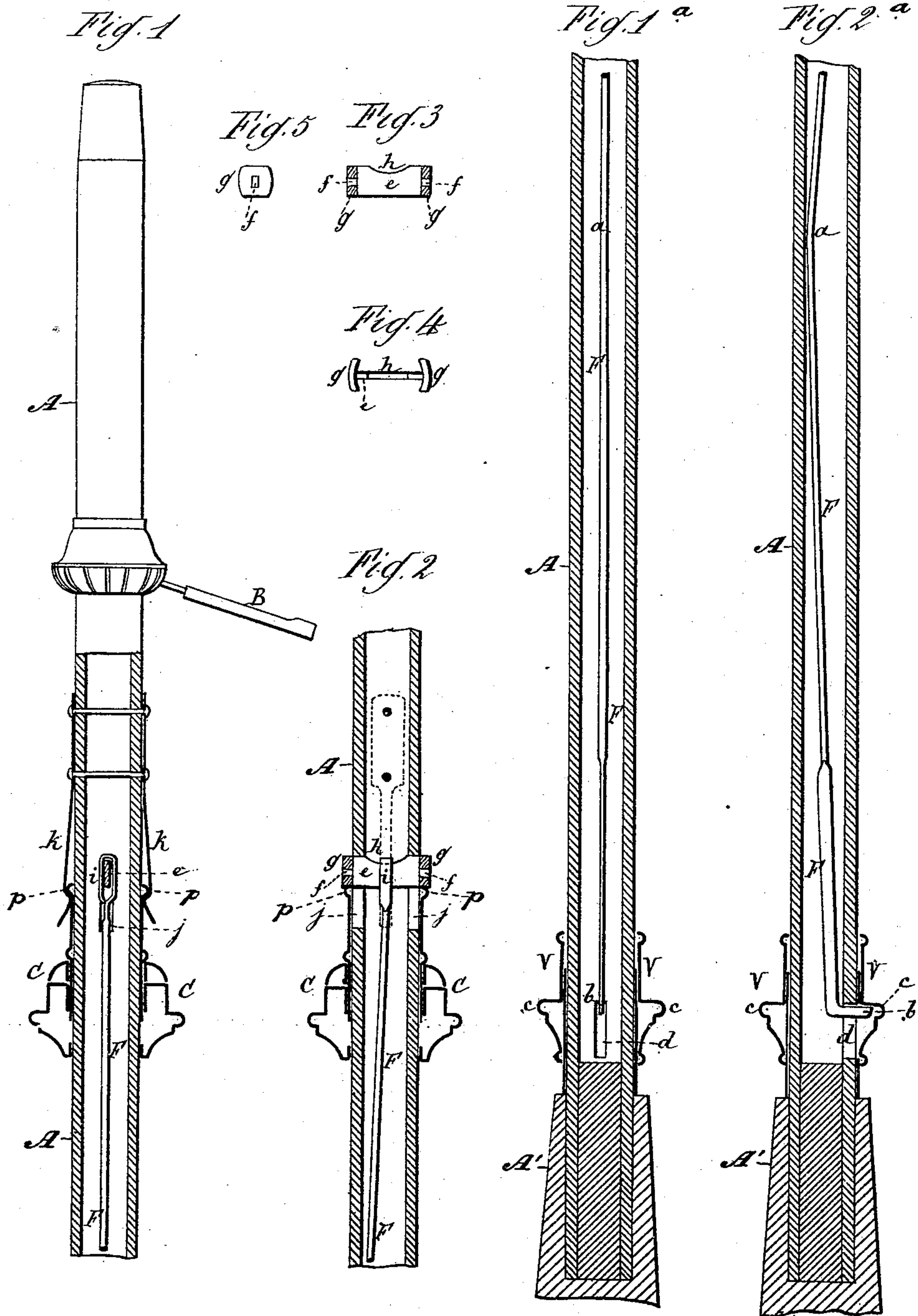
2 Sheets—Sheet 1.

J. MINIÉRE.

UMBRELLA.

No. 250,941.

Patented Dec. 13, 1881.



WITNESSES.

E. B. Bolton
Geo. Sinton.

INVENTOR:

Jules Minière
by his Atty -
Briske, Farns, & Co.

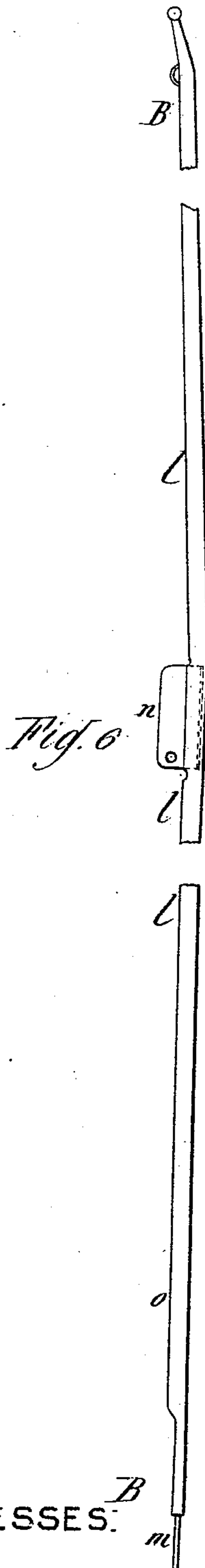
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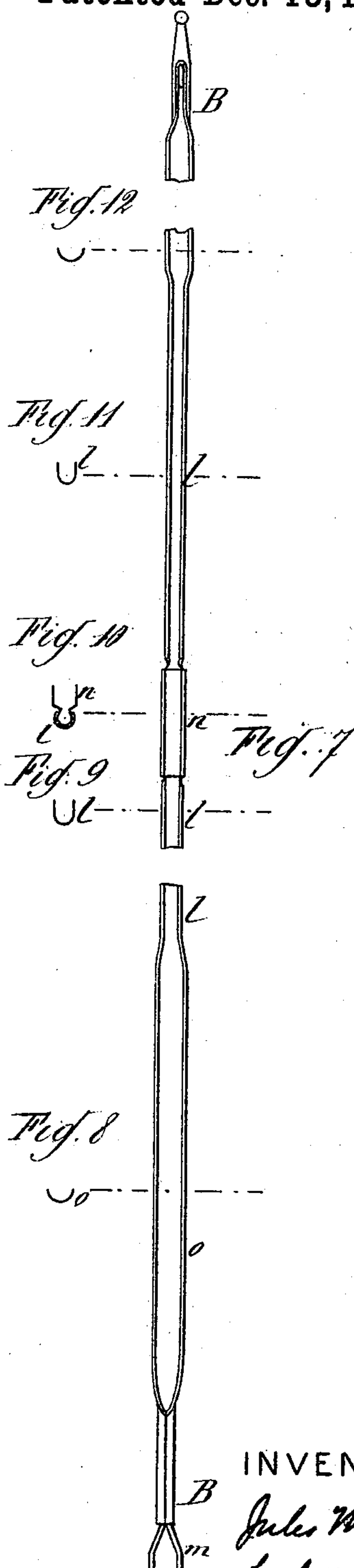
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WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

JULES MINIÈRE, OF PARIS, FRANCE.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 250,941, dated December 13, 1881.

Application filed October 3, 1881. (No model.) Patented in France April 20, 1881.

To all whom it may concern:

Be it known that I, JULES MINIÈRE, a citizen of the French Republic, residing at Paris, France, have invented certain Improvements in Umbrellas and Parasols, of which the following is a specification.

This invention relates, in part, to a mechanism for securing the runner of an umbrella or parasol when the cover is distended, and releasing it from the butt or handle of the stick, and partly in the construction of the ribs upon which the cover is distended.

The usual features of the invention will be more particularly defined in the claims.

In the drawings which serve to illustrate my invention, Figures 1 and 2 are sectional elevations of the upper part of the umbrella-stick and its mountings, taken in planes at right angles to each other. Figs. 1^a and 2^a are sectional elevations of the lower part of the stick and its mountings, taken also in planes at right angles to each other. Fig. 3 is a section. Fig. 4 is a plan, and Fig. 5 an end view of the releasing-slide detached. Figs. 6 and 7 are respectively a side view and a bottom view or plan of the improved rib. Figs. 8, 9, 10, 11, and 12 are transverse sections of the rib shown in Fig. 7, the several sectional planes being indicated by the dotted lines opposite the several figures.

Referring to Figs. 1 to 5, A is the tubular or hollow stick of the umbrella, and A' is the handle affixed thereto.

B is a rib hinged to the stick in the usual or any good way.

C is the runner, which is provided with a rounded bead, *p*, arranged to take under rounded shoulders on springs *k*, mounted on the stick at the proper height to catch and retain the runner when the cover is distended. Fig. 1 shows the parts thus engaged. To disengage the runner from the springs a smart pull is required, and this disengagement is effected from the lower end of the stick with the hand that holds the umbrella by means of the following-described mechanism:

V is a sliding sleeve or thimble mounted on the stick just above the handle A'. This thimble has a hollow enlargement or bead, *c*, which covers or incloses a slot, *d*, in the handle. F is a pulling-rod, made preferably from elastic

metal, and arranged within the hollow of the stick. This rod is provided with a short arm or projection, *b*, which is caused to normally protrude through the slot *d* by the simple expedient of bending the rod at *a*, whereby the inferior portion is caused to spring out to one side, as shown in Fig. 2^a. When the thimble V is slipped down on the stick the shoulder formed by the bead *c* engages the arm *b* and draws down the rod F. The upper end of the rod F has a stirrup or eye, *i*, which takes over the cross-bar *e* of a releasing-slide mounted in slots *j* in the handle, in the same horizontal plane with the shoulders on the springs *k*, but preferably at right angles, diametrically, to the said springs. The preferred construction of this releasing-slide is best shown in Figs. 3, 4, and 5. *f* are tenons formed on the end of the piece *e*, which tenons receive heads *g*, that are riveted fast after the bar *e* is inserted in the stick. These heads fit snugly to the handle, and prevent the escape of the slide. The bar may have a recess, *h*, to receive the stirrup *i* of the rod F.

The operation of the device will be readily understood. When the umbrella-cover is distended and the runner engaged by the retaining-springs *k* the runner may be detached and the cover allowed to collapse by drawing down the thimble V. This draws down the rod F and the slide attached thereto, and the heads *g* of the latter take against the bead *p* on the runner and force it out from under the springs. The rod F is entirely concealed from view and protected against injury by its inclosure within the stick.

Referring to Figs. 6 to 12, B is a rib made from sheet metal with the ordinary U-shaped cross-section. Figs. 8 and 12 show the normal curvature of the rib, and Figs. 9 and 11 show the nearly tubular curvature given to the rib for a part of its length at and above and below the point where the brace is hinged thereto.

n is an elastic hinging-clip, formed by bending a sheet of thin metal, as steel, until it conforms very nearly to the curvature of the rib at the hinging-point. This clip is inserted at *o*, for example, and then forced into the tubular part *l* of the brace to the position it is to occupy, its elasticity permitting it to yield sufficiently. When in position the metal of the

rib is swaged in slightly at both ends of the clip to prevent any longitudinal movement, and it is firmly fixed in place.

I have referred to the curve of the portion *l* as nearly tubular—that is, the margins are curved inward, so as to overhang and thus retain the clip in place. I extend this tubular portion *l* for some inches on each side of the hinging-clip, so as to impart extra stiffness and strength to the rib at this point, where the greatest direct strain is brought to bear, so that it may not break in distending the cover.

The stirrup *m*, for hinging the rib to the stick, is made by bending a bit of wire into a square loop and securing the ends by bending the metal of the rib down upon it.

I do not wish to limit myself to the precise construction shown in the drawings, as this may be varied to some extent without departing from my invention—as, for example, any means may be employed for connecting the thimble *V* with a suitable slide or projection for depressing the runner, and such means need not necessarily be inclosed in the stick.

One or more springs *k* may be employed, as desired.

I am aware that partly tubular or “paragon” ribs for umbrellas are not new, and that hinging-clips for the braces or stretchers have been secured thereto by folding a sheet of thin metal over said rib and bending inwardly its ends until they rest in the hollow of the rib. This I do not claim; but I am not aware of such a rib being constructed with its central part, at and for some distance on either side of the hinging-point of the brace, made semi-tubular, and a little more than that at the hinging-point, while the remaining portions of the rib are made less than semi-tubular, as shown.

Having thus described my invention, I claim—

1. An umbrella-stick provided with an exterior spring with a rounded shoulder to engage a rounded enlargement on the runner, in combination with a runner provided with a rounded enlargement to take under said spring when the umbrella-cover is distended, whereby the said runner may be forcibly disengaged from said spring, substantially as set forth.

2. The combination, with an umbrella-stick

provided with a spring for securing the runner when the cover is distended, of the said runner, a slide mounted on the stick at its lower end, and a rod arranged to extend up to and engage the runner, whereby the latter may be released from the spring by drawing down the slide, substantially as set forth.

3. The combination, with the umbrella-stick, of the runner, the spring for securing the runner, the sliding thimble, the rod connecting the thimble with the releasing-slide, and the said slide, all arranged substantially as set forth.

4. The combination, with the tubular stick of an umbrella, of the thimble *V*, mounted to slide thereon, the rod *F*, arranged in the hollow stick, the releasing-slide mounted in slots in the stick and connected with the rod *F*, the shouldered springs *k*, and the runner *C*, provided with a bead, *p*, all substantially as set forth.

5. The combination, with the tubular stick *A*, having a slot, *d*, of the stiff elastic rod *F*, provided with a projection, *b*, to project through the slot, and a permanent bend, *a*, arranged to keep the projection *b* pressed elastically through the said slot, as and for the purposes set forth.

6. A rib of an umbrella, made partly tubular, and having that portion at the hinging-clip, and for a short distance on both sides thereof, made more nearly tubular than the end portions of the rib, whereby greater stiffness is imparted to the central part of the rib than is possessed by the ends, as set forth.

7. The combination, with a partly tubular umbrella-rib which has that portion at and adjacent to the hinging-clip made a little more than semi-tubular and its end portions less than semi-tubular, of the elastic hinging-clip *n*, constructed and fitted into the more nearly tubular portion and retained in place partly by its elasticity and partly by swaging down the rib at its ends, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JULES MINIÈRE.

Witnesses:

JULES ARMENGAUD, Jeune,
ROBT. M. HOOPER.